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International Application No.

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Applicant(s) (DO/EO/US)

AMOUROUX, Nicolas

Title: METAL SURFACES COATED WITH FLUORINATED POLYMERS

#### PRELIMINARY AMENDMENT

Commissioner for Patents Washington, D.C. 20231

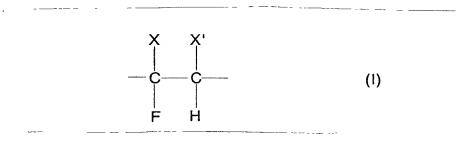
SIR:

Prior to calculating the national fee, and prior to examination in the National Phase of the above-identified International application, please amend as follows:

#### IN THE CLAIMS:

- 4. (Amended) Coated metal surface comprising, successively:
- a layer (1) of primer placed next to the metal and comprising an epoxy primer and 1 to 70 parts
  of a polymer chosen from polymers L2 which are fluoropolymers chemically modified by a
  partial dehydrofluorination followed by an oxidation, per 30 to 99 parts, of said epoxy primer,
- a layer (3) of fluoropolymer.
- 5. (Amended) A coated metal surface according to Claim 1, in which the epoxy primer is the product of the reaction of a thermosetting epoxy resin and of a hardener.
- 7. (Amended) A coated metal surface according to Claim 5, in which the epoxy primer has a Tg greater than 120°C.

- 8. (Amended) A coated metal surface according to Claim 1, containing an acrylic polymer L1 which is a copolymer of methyl methacrylate and of acrylic acid.
- 9. (Amended) A coated metal surface according to Claim 1, containing an acrylic polymer L1 having a Tg greater than or equal to 120°C.
- 10. (Amended) A coated metal surface according to Claim 1, containing the chemically modified fluoropolymers wherein the fluoropolymer and the oil is hot oil which is chemically modified to obtain L2 is a fluoroplastic of a fluoroelastomer which contains units of general formula (l):



in which X and X' may be, independently of each other, a hydrogen atom, or a halogen, or a perhaloalkyl.

- 12. (Amended) A coated metal surface according to claim 1, in which the fluoropolymer L3 is PVDF homopolymer or a VF2-HFP copolymer.
- 13. (Amended) A coated metal surface according to Claim 1, in which the melting point of L3 is greater than 150°C.

- 14. (Amended) A coated metal surface according to Claim 3, in which the fluoropolymer of the layer (3) is PVDF homopolymer or a VF2-HFP copolymer having a melting point of at least 165°C.
- 15. (Amended) A coated metal surface according to Claim 1, in which the surface is an outer surface of a tube.

Please add the following new claims 16 - 20:

- --16. A coated metal surface according to Claim 10, wherein said at least one X and X' is chlorine, fluorine or perfluoroalkyl.
- --17. A coated metal surface according to Claim 1, wherein the metal is steel.
- --18 A coated metal surface according to Claim 15, wherein the metal is steel.
- --19. In a method of transporting oil through a tube, the improvement wherein the tube is in accordance with Claim 18.
- --20. A method according to Claim 19, wherein the tube is in sea water and the oil is hot oil.

#### **REMARKS**

The purpose of this Preliminary Amendment is to eliminate multiple dependent claims in order to avoid the additional fee. Applicants reserve the right to reintroduce claims to canceled combined subject matter.

Attached hereto is a marked-up version of the changes made to the claims by the current amendment. The attached pages are captioned "Version With Markings to Show Changes Made".

Respectfully submitted,

I. William Millen, Reg. No. 19,544

Attorney for Applicants

MILLEN, WHITE, ZELANO & BRANIGAN, P.C.

Arlington Courthouse Plaza 1

2200 Clarendon Boulevard, Suite 1400

Arlington, VA 22201

Direct Dial: 703-812-5306 Facsimile: 703-243-6410 Email: millen@mwzb.com

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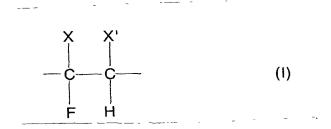
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## VERSION WITH MARKINGS TO SHOW CHANGES MADE

Claims 4,5,7 -10 and 12 - 15 were amended as follows:

- 4. (Amended) Coated metal surface comprising, successively:
- \_a layer (1) of primer placed next to the metal and comprising <u>an epoxy primer and 1</u> to 70 parts of a polymer chosen from polymers L2 which are fluoropolymers chemically modified by a partial \_dehydrofluorination followed- by an oxidation, per 30 to 99 parts, respectively, of an—said epoxy primer,
- a layer (3) of fluoropolymer.
- 5. (Amended) A coated metal surface according to any one of Claims 1-to 4, in which the epoxy primer is the product of the reaction of a thermosetting epoxy resin and of a hardener.
- 7. (Amended) A coated metal surface according to Claim 5 or 6, in which the Tg of the epoxy primer ishas a Tg greater than 120°C.
- 8. (Amended) A coated metal surface according to any one of Claims 1 to3, in which the containing an acrylic polymer L1 which is a copolymer of methyl methacrylate and of acrylic acid.
- 9. (Amended) A coated metal surface according to any one of Claims 1 to 3, in which the Tg of the containing an acrylic polymer L1 is having a Tg greater than or equal to 120°C.

10. (Amended) A coated metal surface according to any one of Claims 1-to 4, in which the polymer, containing the chemically modified fluoropolymers wherein the fluoropolymer and the oil is hot oil which is chemically modified to obtain L2 is a fluoroplastic of a fluoroelastomer which contains units of general formula (1):



in which X and X' may be, independently of each other, a hydrogen atom, <u>or</u> a halogen, in particular fluorine or chlorine, or a perhaloalkyl, in particular perfluoroalkyl.

11. Coated metal surface according to Claim 10, in which the oxidation to prepare L2 is obtained in heterogeneous aqueous medium with hydrogen peroxide (H<sub>2</sub>O<sub>2</sub>) or with the hypochlorite anion (CIO).

- 12. (Amended) A coated metal surface according to any one of claims 1 to 3, in which the fluoropolymer L3 is chosen from PVDF homopolymer or and VF2-HFP copolymers.
- 13. (Amended) A coated metal surface according to any one of Claims 1 to 3, in which the melting point of L3 is greater than 150°C.

- 14. (Amended) A coated metal surface according to any one of Claims 1 3, 3 and 4, in which the fluoropolymer of the layer (3) is PVDF homopolymer or a VF2-HFP copolymer having a melting point of at least 165°C.
- 15. Product(Amended) A coated metal surface according to any one of Claims 1, 2 and 4, in which the surface is thean outer surface of a tubes.

Claims 16 - 20 were newly added and therefore no marked up version is necessary.